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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,580	02/22/2002	Ansgar Freitag	Q68199	7297

7590 04/07/2004

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

JUBA JR, JOHN

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,580

Applicant(s)

FREITAG ET AL.

Examiner

John Juba, Jr.

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-8, 11, 13 and 14 is/are allowed.
6) ☒ Claim(s) 9, 10, and 12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02/22/2002.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

A corrected copy of Applicants' I.D.S. of February 22, 2002 is enclosed. This copy reflects that the examiner has in fact considered the Straaijer, et al reference.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by NIKON CORP (JP 2000-315645 A; hereinafter, "NIKON"). Referring *for example* to Figures 2 and 3 and the associated text in the attached machine-assisted translation (esp. paras. [0003] [0006], [0028] – [0030], & [0033]), NIKON disclose a method for reducing the contamination of a lens (L) contained inside a beam guidance space and that is held by a frame (M) comprising at least partially coating the surfaces of the frame neighboring the beam guidance space with a degassing barrier layer (30). The barrier layer comprises a nickel-phosphorous alloy ([0003]). The recitations of the layer as having been "chemically deposited" or "deposited chemically in an electrolyte" are process limitations that are not seen as imparting any positive structural limitation as would distinguish over the prior art:

"Process limitations cannot impart patentability to product claim where product is not patentably distinguished over prior art." *In re Dike*, 157 USPQ 581 (CCPA 1968).

It is well-settled that the "[p]resence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product." *In re Stephens*, 345 F.2d 1020 (CCPA 1965), 145 USPQ 565, citing *Dilnot*.

With regard to claim 12, NIKON anticipate that the barrier layer may be used in the illumination optical system (UI) of a microlithographic system (e.g., Fig. 2), as discussed for example in paragraph [0007].

Allowable Subject Matter

Claims 1 – 8, 11, 13, and 14 are allowable over the prior art. The following is a statement of reasons for the indication of allowable subject matter: The prior art, taken alone or in combination, fails to teach or fairly suggest

coating stainless steel surfaces of the frame neighboring a beam guidance space at least partially with a degassing barrier layer, as recited in claim 1;

a degassing barrier layer that at least partially coats a stainless steel surface of the frame neighboring the beam guidance space, as recited in claim 6; or

coating surface of the frame neighboring the beam guidance space at least partially with a *chemically deposited nickel layer, or silver, gold, or tantalum* degassing barrier layer, as recited in claim 4.

Response to Amendment

Applicants' amendment is sufficient in overcoming the previous rejection of claims 1 – 3, 6, 7, 8, and 11 under 35 U.S.C. 102(b) as being anticipated by NIKON CORP (JP 2000-315645 A). NIKON teach stainless steel *itself* as a barrier layer, and do not suggest providing a barrier coating on the stainless steel.

The rejection of claims 4 and 5 under 35 U.S.C. 103(a) as being unpatentable over NIKON CORP (JP 2000-315645 A), in view of Phillips, et al have been overcome by amendment and Applicants' remarks. Without the benefit of Applicants' disclosure, nothing would have lead the artisan to expect that the chemically deposited nickel phosphorous layer of Phillips, et al would have had suitable properties as a degassing barrier layer akin to those of the spray deposited nickel phosphorous layer of NIKON. Taken in its entirety claim 4 has been read as reciting the step of coating surface of the frame neighboring the beam guidance space at least partially with a *chemically deposited* degassing barrier layer. That is, the characterization of the degassing barrier layer as "chemically deposited" is regarded as limiting the "coating" step in a manipulative sense.

In the footnote on Page 9 of their remarks, Applicants argue that the characterization of the barrier layers as "chemically deposited" defines specific structural characteristics of the degassing barrier layer. However, they have not pointed out *what* structural characteristics are so defined (e.g., density/porosity) as would distinguish over the spray-deposited film of NIKON. The process limitation is accorded

Art Unit: 2872

weight for all it that conveys to one of ordinary skill about the claimed *structure*. Since the barrier layer of NIKON serves the same function as recited in the claim, it is reasonably expected to have the same physical and chemical characteristics. Thus, it is not clear what "structural characteristics are not disclosed or suggested by NIKON", as argued by Applicants.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hayashi (U.S. Patent number 6,633,364), Tanaka (U.S. Patent number 6,496,248), and Ishikawa (U.S. Patent number 6,628,371) all teach stainless steel as suitable for use in a beam guidance space for its strong resistance to degassing.

Chung, et al (U.S. Patent number 6,451,130), Tomari, et al (U.S. Patent number 5,456,768), Ohmi (U.S. Patent number 5,906,688), and Hill, et al (U.S. Patent number 3,969,151) disclose surface treatments for stainless steel to provide a barrier layer. The treated surfaces are suggested for use in the semiconductor manufacturing environment, but in high-vacuum and corrosive environments. There is no suggestion that such treatment would be needed in a beam guidance space.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2872


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn can be reached on Mon.- Thu., 9 - 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


JOHN JUBA, JR.
PRIMARY EXAMINER
Art Unit 2872

March 29, 2004